DEPARTMENT OF ENVIRONMENTAL CONSERVATION

AIR QUALITY OPERATING PERMIT

Permit No. 58TVP01 Issue Date: January 17, 2003
Application No. 58 Expiration Date: February 29, 2008

The Department of Environmental Conservation, under the authority of AS 46.14 and 18 AAC 50 issues an operating permit to the permittee, Union Oil Company of California, for the operation of the Trading Bay Production Facility.

This permit satisfies the obligation of the owner and operator to obtain an operating permit as set out in AS 46.14.130(b).

As set out in AS 46.14.120(c), the permittee shall comply with the terms and conditions of this operating permit.

All facility-specific terms and conditions of Air Quality Control Permit-to-Operate 9523-AA001 have been incorporated into this Operating Permit.

This Operating Permit becomes effective March 1, 2003.

John F. Kuterbach, Manager

Air Permits Program

Table of Contents

List of Abbreviations Used in this Permit

AAC .....Alaska Administrative Code
ADEC.....Alaska Department of Environmental Conservation
AS.....Alaska Statutes
ASTM.....American Society for Testing and Materials
BACT.....Best Available Control Technology
C.F.R. .....Code of Federal Regulations
CO.....Carbon Monoxide
dscf.....Dry standard cubic foot
EPA.....US Environmental Protection Agency
gr./dscf.....grain per dry standard cubic foot (1 pound = 7000 grains)
GPH.....gallons per hour
ID.....Source Identification Number
kPa.....kiloPascals
MACT .....Maximum Achievable Control Technology
MR&R.....Monitoring, Recordkeeping, and Reporting
NESHAPs.....Federal National Emission Standards for Hazardous Air Pollutants *[NESHAPS* as defined in 40 C.F.R. 61]
NO_X.....Nitrogen Oxides
NSPS.....Federal New Source Performance Standards [*NSPS* as defined in 40 C.F.R. 60]
ppm.....Parts per million
PS .....Performance specification
PSD .....Prevention of Significant Deterioration
RM.....Reference Method
SIC. .....Standard Industrial Classification
SO_2.....Sulfur dioxide
TPH.....Tons per hour
tpy.....Tons per year
VOC .....volatile organic compound [*VOC* as defined in 18 AAC 50.990(103)]
wt%.....weight percent

Section 1. Identification

Names and Addresses

Permittee:	Union Oil Company of California P. O. Box 196247 Anchorage, AK 99519-6247
Facility Name:	Trading Bay Production Facility
Location:	60° 48′ 56″ North; 151° 46′ 51″ West
Physical Address:	Cook Inlet, Alaska
Owner:	Union Oil Company of California P. O. Box 196247 Anchorage, AK 99519-6247
Operator:	Union Oil Company of California P. O. Box 196247 Anchorage, AK 99519-6247
Permittee's Responsible Official	Dale Haines, Unocal Alaska Operations Manager
Designated Agent:	CT Corporation 801 West 10 th Street, Suite 300 Juneau, AK 99801
Facility and Building Contact:	Paul Bartolowits and Paul Delago Phone: (907) 776-6855 Fax: (907) 776-6852
Fee Contact:	Janet Bounds Union Oil Company of California P. O. Box 196247 Anchorage, AK 99519-6247 Boundsj@unocal.com

SIC Code of the Facility:

1311- Crude Oil And Natural Gas

[18 AAC 50.350(b)(1), 1/18/97]

Section 2. General Emission Information

Emissions of Regulated Air Contaminants, as provided in the permittee's application:
Particulate Matter (PM-10), Sulfur Oxides (SO_x), Nitrogen Oxides (NO_x), Carbon Monoxide (CO), and Volatile Organic Compounds (VOCs).

Operating Permit Classifications as described under 18 AAC 50.325:

(1) **18 AAC 50.325(b)(1)** The Trading Bay Production site is a facility subject to this regulation because the plant emits or has the potential to emit 100 tons per year (tpy) or more of a regulated air contaminant under 18 AAC 50.015.

(2) **18 AAC 50.325(c)** The Trading Bay Production site is a facility subject to this regulation because the facility contains fuel-burning equipment, Source ID 19 with a rated capacity of 100 million Btu per hour or more, that is within the category described in 18 AAC 50.300(b) -(e).

[18 AAC 50.350(b)(1), 1/18/97]

Section 3. Source Inventory and Description

Sources listed in Table 1 have specific monitoring, record keeping, or reporting conditions in this permit. Source descriptions and ratings are given for identification purposes only.

Table 1 - Source Inventory

ID	Tag Number	Source Name	Source Description	Rating/size	Install Date
1[1]	RH-381	Heater Treater # 1	Nat'l 10x40 VFH Htr Trtr	4.25 MMBtu/hr	1966
2	RH-382	Heater Treater #2	Nat'l 10x40 VFH Htr Trtr	4.25 MMBtu/hr	1966
3	RH-383	Heater Treater # 3	Nat'l 10x40 VFH Htr Trtr	4.25 MMBtu/hr	1967
4	RH-384	Heater Treater #4	Nat'l 10x40 VFH Htr Trtr	4.25 MMBtu/hr	1967
5[2]	RH-385	Heater Treater # 5	Nat'l 12x70 VFH-D Htr Trtr	9.25 MMBtu/hr	1968
6	RH-386	Heater Treater #6	Nat'l 12x70 VFH-D Htr Trtr	9.25 MMBtu/hr	1968
7	RH-387	Heater Treater #7	Nat'l 12x70 VFH-D Htr Trtr	14.00 MMBtu/hr	1968
8	RH-389	Recycle Heater Treater	Nat'l 10x40 VFH Htr Trtr	5.87 MMBtu/hr	1967
9	RH-352	Uniflux #2	Exotherm Uniflux	40.0 MMBtu/hr	1978
10	RH-3030	LEX Hot Oil Heater	Econotherm Heater	25.0 MMBtu/hr	1968
11	RH-371	Flow Splitter & FWKO	Nat'l 12x50 Flow Splitter	16.0 MMBtu/hr	1968
12	RH-372	Flow Splitter	Nat'l 12x50 Flow Splitter	8.5 MMBtu/hr	1968
13	RH-373	FWKO	Trico Superior RT-3 FWKO	25.0 MMBtu/hr	1978
14	RPM-001	AC Generator Drive	Solar Turbine #1(T-102-85-230)	800kW (1100 Hp)	1970
15	RPM-002	AC Generator Drive	Solar Turbine #2(T-1025-230) (NG/Dsl)	750kW (1100 Hp)	1970
16	RPM-003	AC Generator Drive	Solar Turbine #3(GSC 1000)	800kW (1100 Hp)	1973
17	R-PM-980	Emergency Generator #1	Waukesha F2895GU 300kW Gen	300 kW	<1980
18	R-PMJ-005	Emergency Generator #2	Cat D353E Engine (Dsl)	420 Hp	1981
19	R-SP-LP	Low Pressure Flare Field	John Zink LP Flare	329 MMCF/yr	<1980
20	R-SP-HP	High Pressure Flare	John Zink HP Flare	36 MMCF/yr	1993

Except for Source IDs 15 and 18 all equipment is fired with fuel gas which includes produced gas from offshore platforms that supply Trading Bay

[1] Ratings for Source IDs 1 through 4 and 7 original heat input ratings revised down 12/13/01
[2] Source IDs 5, 6 and 11 heat input corrected by downsizings in 1999 and 2000.

Section 4. Fee Requirements

1. Assessable Emissions. The permittee shall pay to the department an annual emission fee based on the facility's assessable emissions as determined by the department under 18 AAC 50.410. The assessable emission fee rate is set out in 18 AAC 50.410. The department will assess fees per ton of each air contaminants that the facility emits or has the potential to emit in quantities greater than 10 tons per year. The quantity for which fees will be assessed is the lesser of

1.1 the facility's potential to emit of 535 tpy (195 tons of NO_X, 199 tons of CO, 90 tons of SO_2, 21 tons of PM-10, and 30 tons of VOC); or

1.2 the facility's projected annual rate of emissions that will occur from July 1 to the following June 30, based upon actual annual emissions emitted during the most recent calendar year or another 12 month period approved in writing by the department, when demonstrated by

a. an enforceable test method described in 18 AAC 50.220;

b. material balance calculations;

c. emission factors from EPA's publication AP-42, Vol. I, adopted by reference in 18 AAC 50.035; or

1.3 other methods and calculations approved by the department.

[18 AAC 50.346(a)(1), 5/3/02 & 50.410, 1/18/97]

2. Assessable Emission Estimates. Emission fees will be assessed as follows:

2.1 no later than March 31 of each year, submit an estimate of the facility's assessable emissions to ADEC, Air Permits Program, ATTN: Assessable Emission Estimate, 410 Willoughby Ave., Juneau, AK 99801-1795, the submittal must include all of the assumptions and calculations used to estimate the assessable emissions in sufficient detail so the department can verify the estimates, or

2.2 if no estimate is received on or before March 31 of each year, emission fees for the next fiscal year will be based on the potential to emit listed in condition 1.1.

[18 AAC 50.346(a)(1), 5/3/02 & 50.410, 1/18/97]

Section 5. Source-Specific Requirements

Fuel-Burning Equipment

3. **Visible Emissions.** The permittee shall not cause or allow visible emissions, excluding condensed water vapor, emitted from Source IDs 1- 20 listed in Table 1 to reduce visibility through the exhaust effluent by any of the following:

3.1 more than 20 percent for more than **three** minutes in any one hour[3],

[18 AAC 50.055(a)(1), 1/18/97 & 40 CFR 52.70, 7/01/01]

3.2 more than 20 percent averaged over any **six** consecutive minutes.

[18 AAC 50.050(a) & 18 AAC 50.055(a)(1), 5/3/02]

3.3 Monitor, record and report visible emissions in accordance with Section 13.

[18 AAC 50.350(g) - (i), 5/3/02]

4. **Particulate Matter.** The permittee shall not cause or allow particulate matter emitted from Source IDs 1- 20 listed in Table 1 to exceed 0.05 grains per cubic foot of exhaust gas corrected to standard conditions and averaged over three hours.

Monitor, record and report according to Section 13.

[18 AAC 50.055(b) & 18 AAC 50.350(d)(1)(D), 1/18/97; 18 AAC 50.350(g) – (i) & 18 AAC 50.346(c), 5/3/02]

Sulfur Compound Emissions

5. In accordance with 18 AAC 50.055(c), the permittee shall not cause or allow sulfur compound emissions, expressed as SO_2, from Source IDs 1 - 20 to exceed 500 ppm averaged over three hours.

[18 AAC 50.055(c) & 18 AAC 50.350(d)(1)(D); 1/18/97; 18 AAC 50.346(c), 5/3/02]

Oil Fired Equipment: (Source IDs 15 and 18)

5.1 The permittee shall do one of the following for each shipment of fuel:

a. if the fuel grade requires a sulfur content less than 0.5% by weight, keep receipts that specify fuel grade and amount; or

b. if the fuel grade does not require a sulfur content less than 0.5% by weight, keep receipts that specify fuel grade and amount and

c. test the fuel for sulfur content; or

[3] For purposes of this permit, the "more than three minutes in any one hour" criterion in this condition and condition 10 will no longer be effective when the Air Quality Control (18 AAC 50) regulation package effective 5/3/02 is adopted by the U.S. EPA. The six-minute average standard is enforceable only by the state for Sources 1 - 20 until 18 AAC 50.055(a)(1), dated May 3, 2002 is approved by EPA into the SIP at which time this standard becomes federally enforceable.

d. obtain test results showing the sulfur content of the fuel from the supplier or refinery; the test results must include a statement signed by the supplier or refinery of what fuel they represent.

(i) Fuel testing under condition 5.1 must follow an appropriate method listed in 18 AAC 50.035 or another method approved in writing by the department.

(ii) If a load of fuel contains greater than 0.75 % sulfur by weight, the permittee shall calculate SO_2 emissions in PPM using either Section 14 or Method 19 of 40 C.F.R. 60, Appendix A-7, adopted by reference in 18 AAC 50.040(a).

[18 AAC 50.350(g), 1/18/97; 18 AAC 50.350(g) - (i) & 18 AAC 50.346(c), 5/3/02]

e. The permittee shall report as follows:

(i) If SO_2 emissions are calculated under condition 5.1d(ii) to exceed 500 ppm, the permittee shall report under condition 34. When reporting under this condition, include the calculation under Section 14.

(ii) The permittee shall include in the operating report required by condition 36

(a) a list of the fuel grades received at the facility during the reporting period;

(b) for any grade with a maximum fuel sulfur greater than 0.5 percent sulfur, the fuel sulfur of each shipment; and

(c) for fuel with a sulfur content greater than 0.75 percent, the calculated SO_2 emissions in ppm.

[18 AAC 50.346(c) & 350(g) - (i), 5/3/02]

5.2 Gas-Fired Sources: (Source IDs 1–17, 19 and 20)

a. Analyze a representative sample of the fuel semi-annually to determine the sulfur content using length-of-stain detector tubes per ASTM Methods D4810-88 and D4913-89, or Gas Producer's Association Method 2377-86.

[EPA Custom Fuel Monitoring Schedule for Unocal Cook Inlet Facilities, 9/22/98]
[18 AAC 50.350(g), 1/18/97]

b. Record the hydrogen sulfide (H_2S) concentration of the gas required under condition 5.2a.

c. Report under condition 34 whenever the H_2S concentration of the gas obtained or analyzed exceeds 4000 ppm.

d. Attach copies of the records required by condition 5.2b with the facility operating report required by condition 36.

[18 AAC 50.350(h)-(i), 5/3/02]

Other Monitoring for Source IDs 1 –18

6. The permittee shall monitor and record the hours of operation for Source IDs 1- 18 in Table 1 for each consecutive twelve-month period.

[Operating Permit No. 9523-AA001, 1/16/95]
[18 AAC 50.350(d)(1)(D), 6/21/98]

7. The permittee shall include copies of the records required by condition 6 with the facility operating report required by condition 36.

[18 AAC 50.350(i), 1/18/97]

Section 6. Facility-Wide Requirements

8. The permittee shall limit the facility's operations as follows:

8.1 The permittee shall not operate Source IDs 17 and 18, for purposes of routine maintenance and verification of operational capability, more than 120 hours each in any consecutive twelve-month period.

Monitor and report the operating hours per conditions 6 and 7.

[Operating Permit No. 9523-AA001, 1/16/95]
[18 AAC 50.350(d)(1)(D), 6/21/98

8.2 The permittee shall provide a means of flow control to the flaring systems, Source IDs 19 and 20 sized, installed and operated, to limit the flow to no more than the design capacity of the phase separator. Liquids shall not be allowed to the flare. During routine and operational venting, permittee shall not flare more than 3.0 MMCF per day of gas, annual average.

[Operating Permit No. 9523-AA001, 1/16/95]
[18 AAC 50.350(d)(1)(D), 6/21/98]

8.3 The permittee shall burn only diesel or distillate fuel with a sulfur content of no greater than 0.50%, by weight.

Monitor and report per condition 5.1.

[Operating Permit No. 9523-AA001, 1/16/95]
[18 AAC 50.350(d)(1)(D), 6/21/98]

Section 7. Insignificant Sources

This section contains the requirements that the permittee identified under 18 AAC 50.335(q)(2) as applicable to insignificant sources at the facility. This section also specifies the testing, monitoring, recordkeeping, and reporting for insignificant sources that the department finds necessary to ensure compliance with the applicable requirements. Insignificant sources are not exempted from any air quality control requirement or federally enforceable requirement.

As set out in 18 AAC 50.350(m), the shield of AS 46.14.290 does not apply to insignificant sources.

9. For sources at the facility that are insignificant as defined in 18 AAC 50.335(q)-(v) that are not listed in this permit, the following apply:

9.1 the permittee shall submit the annual compliance certifications of condition 37 based on reasonable inquiry;

9.2 the permittee shall comply with the requirements of condition 18;

9.3 no other monitoring, recordkeeping, or reporting is required.

[18 AAC 50.346(b)(1), 5/3/02]

10. The permittee shall not cause or allow visible emissions, excluding condensed water vapor, emitted from insignificant sources to reduce visibility through the exhaust effluent by either;

10.1 more than 20 percent for more than three minutes in any one hour[4], or

[18 AAC 50.050(a)(2) & 18 AAC 50.055(a)(1), 1/18/97 & 40 CFR 52.70, 11/18/98]

10.2 more than 20 percent averaged over any six consecutive minutes.

[18 AAC 50.055(a)(1), 5/3/02]

11. The permittee shall not cause or allow particulate matter emitted from an industrial process or fuel-burning equipment to exceed 0.05 grains per cubic foot of exhaust gas corrected to standard conditions and averaged over three hours.

[18 AAC 50.055(b)(1), 1/18/97]

12. The permittee shall not cause or allow sulfur compound emissions, expressed as SO_2, from an industrial process or fuel-burning equipment, to exceed 500 ppm averaged over three hours.

[18 AAC 50.055(c), 1/18/97]

[4] See footnote 1

Section 8. Generally Applicable Requirements

13. Asbestos NESHAP. The permittee shall comply with the requirements set forth in 40 C.F.R. 61.145, 61.150, and 61.152, and the applicable sections set forth in 40 C.F.R. 61, Subpart A and Appendix A.

[18 AAC 50.040(b)(3) & 50.350(d)(1), 1/18/97]
[40 C.F.R. 61, Subparts A & M, 12/19/96]

14. Good Air Pollution Control Practice[5]. The permittee shall do the following for Source IDs 1 – 20:

14.1 perform regular maintenance considering the manufacturer's or the operator's maintenance procedures;

14.2 keep records of any maintenance that would have a significant effect on emissions; the records may be kept in electronic format;

14.3 keep a copy of either the manufacturer's or the operator's maintenance procedures.

[18 AAC 50.346(b)(2), 5/3/02]

15. Dilution. The permittee shall not dilute emissions with air to comply with this permit.

[18 AAC 50.045(a), 1/18/97]

16. Stack Injection. The permittee shall not release materials other than process emissions, products of combustion, or materials introduced to control pollutant emissions from a stack at a source constructed or modified after November 1, 1982, unless approved in writing by the department.

[18 AAC 50.055(g), 1/18/97]

17. Open Burning. The permittee shall comply with the following requirements when conducting open burning at the facility.

17.1 Open burning of asphalt, rubber products, plastics, tars, oils, oily wastes, contaminated oil cleanup materials, or other materials in a way that gives off black smoke is prohibited without written approval of the department in accordance with the procedures set forth in 18 AAC 50.065.

[18 AAC 50.065(b) & 50.350(d)(1), 1/18/97]

17.2 Open burning or incineration of pesticides, halogenated organic compounds, cyanic compounds, or polyurethane products in a way that gives off toxic or acidic gases or particulate matter is prohibited.

[18 AAC 50.065(c) & 50.350(d)(1), 1/18/97]

[5] Condition 14 is enforceable only by the State until the new regulations, dated May 3, 2002, are approved by EPA into the SIP at which time this standard becomes federally enforceable.

17.3 Open burning of putrescible garbage, animal carcasses, or petroleum-based materials, including materials contaminated with petroleum or petroleum derivatives, is prohibited if it causes odor or black smoke that has an adverse effect on nearby persons or property.

[18 AAC 50.065(d) & 50.350(d)(1), 1/18/97]

17.4 Open burning is prohibited in an area if the department declares an air quality advisory under 18 AAC 50.245, stating that open burning is not permitted in that area for the day.

[18 AAC 50.065(e) & 50.350(d)(1), 1/18/97]

17.5 When conducting open burning, ensure that

[18 AAC 50.065(a), 50.350(d)(1) & 50.335(g) – (h), 5/3/02]

a. the material is kept as dry as possible through the use of cover or dry storage;

b. before igniting the burn, noncombustibles are separated to the greatest extent practicable;

c. natural or artificially induced draft is present;

d. to the greatest extent practicable, combustibles are separated from grass or peat layer;

e. combustibles are not allowed to smolder; and

f. sufficient written records are kept to demonstrate that the permittee complies with the limitations in this condition. Upon request of the department, submit copies of the records.

18. Air Pollution Prohibited. The permittee shall not cause any emission which is injurious to human health or welfare, animal or plant life, or property, or which would unreasonably interfere with the enjoyment of life or property.

[18 AAC 50.110, 5/26/72]

Monitoring, Record Keeping, and Reporting for Air Pollution Prohibited

18.1 If emissions present a potential threat to human health or safety, the permittee shall report any such emissions according to condition 34.

18.2 As soon as practicable after becoming aware of a complaint that is attributable to emissions from the facility, the permittee shall investigate the complaint to identify emissions that the permittee believes have caused or are causing a violation of condition 18.

18.3 The permittee shall initiate and complete corrective action necessary to eliminate any violation identified by a complaint or investigation as soon as practicable if

a. after an investigation because of a complaint or other reason, the permittee believes that emissions from the facility have caused or are causing a violation of condition 18; or

b. the department notifies the permittee that it has found a violation of condition 18.

18.4 The permittee shall keep records of

a. the date, time, and nature of all emissions complaints received;

b. the name of the person or persons that complained, if known;

c. a summary of any investigation, including reasons the permittee does or does not believe the emissions have caused a violation of condition 18; and

d. any corrective actions taken or planned for complaints attributable to emissions from the facility.

18.5 With each facility operating report under condition 36, the permittee shall include a brief summary report which must include

a. the number of complaints received;

b. the number of times the permittee or the department found corrective action necessary;

c. the number of times action was taken on a complaint within 24 hours; and

d. the status of corrective actions the permittee or department found necessary that were not taken within 24 hours.

18.6 The permittee shall notify the department of a complaint that is attributable to emissions from the facility within 24 hours after receiving the complaint, unless the permittee has initiated corrective action within 24 hours of receiving the complaint.

[18 AAC 50.346(a)(2) & 18 AAC 50.350(h) – (i), 5/3/02]

19. Permit Renewal. To renew this permit, the permittee shall submit a complete application under 18 AAC 50.335 no sooner than **August 29, 2006** and no later than **August 29, 2007** to renew this permit**.**

[18 AAC 50.335(a), 1/18/97]

Section 9. General Source Testing and Monitoring Requirements

20. Requested Source Tests. In addition to any source testing explicitly required by this permit, the permittee shall conduct source testing as requested by the department to determine compliance with applicable permit requirements.

[18 AAC 50.220(a) 1/18/97 & 18 AAC 50.345(a)&(k), 5/3/02]

21. Operating Conditions. Unless otherwise specified by an applicable requirement or test method, the permittee shall conduct source testing

[18 AAC 50.220(b) & 50.350(g), 1/18/97]

21.1 at a point or points that characterize the actual discharge into the ambient air; and

21.2 at the maximum rated burning or operating capacity of the source or another rate determined by the department to characterize the actual discharge into the ambient air.

22. Reference Test Methods. Except as approved by the department, the permittee shall use the following as reference test methods when conducting source testing for compliance with this permit:

22.1 Source testing for compliance with requirements adopted by reference in 18 AAC 50.040(a) must be conducted in accordance with the methods and procedures specified in 40 C.F.R. 60.

[18 AAC 50.040(a), 7/2/00]
[18 AAC 50.220(c)(1)(A) & 50.350(g), 1/18/97]
[40 C.F.R. 60, 7/1/99]

22.2 Source testing for compliance with requirements adopted by reference in 18 AAC 50.040(b) must be conducted in accordance with the methods and procedures specified in 40 C.F.R. 61.

[18 AAC 50.040(b), 50.220(c)(1)(B) & 50.350(g), 1/18/97]
[40 C.F.R. 61, 12/19/96]

22.3 Source testing for compliance with requirements adopted by reference in 18 AAC 50.040(c) must be conducted in accordance with the source test methods and procedures specified in 40 C.F.R. 63.

[18 AAC 50.040(c), 7/2/00]
[18 AAC 50.220(c)(1)(C) & 50.350(g), 1/18/97]
[40 C.F.R. 63, 7/1/99]

22.4 Source testing for the reduction in visibility through the exhaust effluent must be conducted in accordance with the procedures set out in Reference Method-9.

[18 AAC 50.030, 12/30/00]
[18 AAC 50.220(c)(1)(D) & 50.350(g), 1/18/97]

22.5 Source testing for emissions of particulate matter, sulfur compounds, nitrogen compounds, carbon monoxide, lead, volatile organic compounds, fluorides, sulfuric acid mist, municipal waste combustor organics, metals, and acid gases must be conducted in accordance with the methods and procedures specified in 40 C.F.R. 60, Appendix A.

[18 AAC 50.040(a)(4), 7/2/00]
[18 AAC 50.220(c)(1)(E) & 50.350(g), 1/18/97]
[40 C.F.R. 60, Appendix A, 7/1/99]

22.6 Source testing for emissions of PM-10 must be conducted in accordance with the procedures specified in 40 C.F.R. 51, Appendix M.

[18 AAC 50.035(b)(2), 7/2/00]
[18 AAC 50.220(c)(1)(F) & 18 AAC 50.350(g), 1/18/97]
[40 C.F.R. 51, Appendix M, 7/1/99]

22.7 Source testing for emissions of any contaminant may be determined using an alternative method approved by the department in accordance with 40 C.F.R. 63 Appendix A, Method 301.

[18 AAC 50.040(c)(19), 7/2/00]
[18 AAC 50.220(c)(2) & 50.350(g), 1/18/97]
[40 C.F.R. 63, Appendix A, Method 301, 7/1/99]

23. Excess Air Requirements. To determine compliance with this permit, standard exhaust gas volumes must only include the volume of gases formed from the theoretical combustion of fuel, plus the excess air volume normal for the specific source type, corrected to standard conditions (dry gas at 68° F and an absolute pressure of 760 millimeters of mercury).

[18 AAC 50.220(c)(3) & 18 AAC 50.350(g); 1/18/97; & 18 AAC 50.990(88), 5/3/02]

24. Test Exemption. The permittee is not required to comply with conditions 21.2, 26, 27, and 28 (Operating Conditions, Test Plans, Test Notifications and Test Reports) when the exhaust is observed for visible emissions by Method-9 Plan (condition 48).

[18 AAC 50.345(a), 5/3/02]

25. Test Deadline Extension. The permittee may request an extension to a source test deadline established by the department. The permittee may delay a source test beyond the original deadline only if the department's appropriate division director or designee approves the extension in writing. This is a state-only condition.

[18 AAC 50.345(a)&(l), 5/3/02]

26. Test Plans. Before conducting any source tests, the permittee shall submit a plan to the department. The plan must include the methods and procedures to be used for sampling, testing, and quality assurance, and must specify how the source will operate during the test and how the permittee will document this operation. The permittee shall submit a complete plan within 60 days of receiving a request under condition 20 and at least 30 days before the scheduled date of any test unless the department agrees in writing to some other time period. Retesting may be done without resubmitting the plan. The permittee is not required to comply with this condition when the exhaust is observed for visible emissions.

[18 AAC 50.350(b)(3) & 18 AAC 50.350(g), 1/18/97; & 18 AAC 50.345(a)&(m), 5/3/02]

27. Test Notification. At least 10 days before conducting a source test, the permittee shall give the department written notice of the date and the time the source test will begin. The permittee is not required to comply with this condition when the exhaust is observed for visible emissions.

[18 AAC 50.350(b)(3), 1/18/97 & 18 AAC 50.345(a)&(n), 5/3/02]

28. Test Reports. Within 60 days after completing a source test, the permittee shall submit two copies of the results, to the extent practical, in the format set out in the *Source Test Report Outline* of Volume III, Section IV.3 of the State Air Quality Control Plan, adopted by reference in 18 AAC 50.030. The permittee shall certify the results as set out in 18 AAC 50.345(j). If requested in writing by the department, the permittee must provide preliminary results in a shorter period of time specified by the department. The permittee is not required to comply with this condition when the exhaust is observed for visible emissions.

[18 AAC 50.350(b)(3), 1/18/97; 18 AAC 50.350(h) – (i) & 18 AAC 50.345(a)&(o), 5/3/02]

29. Particulate Matter Calculations. In source testing for compliance with the particulate matter standards in conditions 4 and 11, the three-hour average is determined using the average of three one-hour test runs.

[18 AAC 50.220(f) & 50.350(g), 1/18/97]

Section 10. General Recordkeeping, Reporting, and Compliance Certification Requirements

30. Certification. The permittee shall certify all reports, compliance certifications, or other documents submitted to the department and required under the permit by including the signature of a responsible official for the permitted facility following the statement: "Based on information and belief formed after reasonable inquiry, I certify that the statements and information in and attached to this document are true, accurate, and complete." Excess emission reports must be certified either upon submittal or with an operating report required for the same reporting period. All other reports and other documents must be certified upon submittal. When certifying a compliance certification, the official's signature must be notarized.

[18 AAC 50.205, 18 AAC 50.350(b)(3) & 18 AAC 50.350(i) 1/18/97; & 18 AAC 50.345(a)&(j), 5/3/02]

31. Submittals. Unless otherwise directed by the department or this permit, the permittee shall send reports, compliance certifications, and other documents required by this permit to ADEC, Air Permits Program, 610 University Ave., Fairbanks, AK 99709-3643, ATTN: Compliance Technician.

[18 AAC 50.350(i), 1/18/97]

32. Information Requests. The permittee shall furnish to the department, within a reasonable time, any information the department requests in writing to determine whether cause exists to modify, revoke and reissue, or terminate the permit or to determine compliance with the permit. Upon request, the permittee shall furnish to the department copies of records required to be kept by this permit. The department may require the permittee to furnish copies of those records directly to the federal administrator.

[18 AAC 50.200 & 18 AAC 50.350(b)(3), 1/18/97 & 18 AAC 50.350(g) – (i) & 18 AAC 50.345(a)&(i), 5/3/02]

33. Recordkeeping Requirements. The permittee shall keep all records required by this permit for at least five years after the date of collection, including:

33.1 copies of all reports and certifications submitted pursuant to this section of the permit; and

33.2 records of all monitoring required by this permit, and information about the monitoring including:

a. calibration and maintenance records, original strip chart or computer-based recordings for continuous monitoring instrumentation;

b. sampling dates and times of sampling or measurements;

c. the operating conditions that existed at the time of sampling or measurement;

d. the date analyses were performed;

e. the location where samples were taken;

f. the company or entity that performed the sampling and analyses;

g. the analytical techniques or methods used in the analyses; and

h. the results of the analyses.

[18 AAC 50.350(h), 5/3/02]

34. Excess Emission and Permit Deviation Reports.

34.1 Except as provided in condition 18, the permittee shall report all emissions or operations that exceed or deviate from the requirements of this permit as follows:

a. in accordance with 18 AAC 50.240(c), as soon as possible after the event commences or is discovered, report

(i) emissions that present a potential threat to human health or safety; and

(ii) excess emissions that the permittee believes to be unavoidable;

b. in accordance with 18 AAC 50.235(a), within two working days after the event commenced or was discovered, report an unavoidable emergency, malfunction, or nonroutine repair that causes emissions in excess of a technology based emission standard;

c. report all other excess emissions and permit deviations

(i) within 30 days of the end of the month in which the emissions or deviation occurs or was discovered, except as provided in conditions 34.1c(ii) and 34.1c(iii);

(ii) if a continuous or recurring excess emissions is not corrected within 48 hours of discovery, within 72 hours of discovery unless the department provides written permission to report under condition 34.1c(i); and

(iii) for failure to monitor, as required in other applicable conditions of this permit.

34.2 When reporting excess emissions, the permittee must report using either the department's on-line form, which can be found at www.dec.state.ak.us/awq/excess/report.asp, or, if the permittee prefers, the form contained in Section 15 of this permit. The permittee must provide all information called for by the form that is used.

34.3 When reporting a permit deviation, the permittee must report using the form contained in Section 15 of this permit. The permittee must provide all information called for by the form.

34.4 If requested by the department, the permittee shall provide a more detailed written report as requested to follow up an excess emissions report.

[18 AAC 50.235(a)(2), 18 AAC 50.240(c) & 18 AAC 50.350(i), 1/18/97 & 18 AAC 50.346(c), 5/3/02]
[18 AAC 50.235(a)(2), 18 AAC 50.240(c), & 50.350(i), 1/18/97]

35. NSPS and NESHAP Reports. The permittee shall submit to the department copies of reports required by condition 13 as they apply to the facility as follows:

35.1 Attach a copy of any NSPS and NESHAPs reports submitted to the U.S. Environmental Protection Agency (EPA) Region 10 to the facility operating report required in condition 36 unless previously submitted to the department; and

35.2 upon request by the department, notify and provide a written copy of any EPA-granted waiver of the federal emission standards, record keeping, monitoring, performance testing, or reporting requirements, or approved custom monitoring schedules.

[18 AAC 350(i)(2), 1/18/97 & 18 AAC 50.040, 7/2/00]
[Federal Citation 40 C.F.R. 60 & 40 C.F.R. 61, 7/1/99]

36. Operating Reports. During the life of this permit, the permittee shall submit to the department an original and two copies of an operating report by August 1 for the period January 1 to June 30 of the current year and by February 1 for the period July 1 to December 31 of the previous year.

36.1 The operating report must include all information required to be in operating reports by other conditions of this permit.

36.2 If excess emissions or permit deviations that occurred during the reporting period are not reported under condition 36.1, either

a. The permittee shall identify

(i) the date of the deviation;

(ii) the equipment involved;

(iii) the permit condition affected;

(iv) a description of the excess emissions or permit deviation; and

(v) any corrective action or preventive measures taken and the date of such actions; or

b. when excess emissions or permit deviations have already been reported under condition 34 the permittee may cite the date or dates of those reports.

[18 AAC 50.350(d)(4), 18 AAC 50.350(f)(3) & 18 AAC 50.350(i), 1/18/97 & 18 AAC 50.345(a)&(j), 5/3/02]

36.3 The operating report must include a listing of emissions monitored under conditions 48 and 51, which trigger additional testing or monitoring, whether or not the emissions monitored, exceed an emission standard. The permittee shall include in the report

a. the date of the emissions;

b. the equipment involved;

c. the permit condition affected; and

d. the monitoring result which triggered the additional monitoring.

[18 AAC 50.350(d)(4), (f)(3), & (i); 1/18/97 & 18 AAC 50.346(b)(3), 5/3/02]

37. Annual Compliance Certification. Each year by March 31st, the permittee shall compile and submit to the department an original and two copies of an annual compliance certification report as follows:

37.1 For each permit term and condition set forth in Section 4 through Section 11 and Section 13 , including terms and conditions for monitoring, reporting, and recordkeeping:

a. certify the compliance status over the preceding calendar year consistent with the monitoring required by this permit;

b. state whether compliance is intermittent or continuous; and

c. briefly describe each method used to determine the compliance status.

d. notarize the official's signature.

37.2 Submit a copy of the report directly to the EPA-Region 10, Office of Air Quality, M/S OAQ-107, 1200 Sixth Avenue, Seattle, WA 98101.

[18 AAC 50.350(d)(4), (f)(3) & (i), 1/18/97 & 18 AAC 50.346(b)(3), 5/3/02]

Section 11. Standard Conditions Not Otherwise Included in the Permit

38. The permittee must comply with each permit term and condition. Noncompliance constitutes a violation of AS 46.14, 18 AAC 50, and, except for those terms or conditions designated as not federally-enforceable, the Clean Air Act, and is grounds for:

38.1 an enforcement action,

38.2 permit termination, revocation and reissuance, or modification in accordance with AS 46.14.280, or

38.3 denial of an operating-permit renewal application.

[18 AAC 50.350(b)(3), 1/18/97 18 AAC 50.345(a)&(c), 5/3/02]

39. It is not a defense in an enforcement action to claim that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with a permit term or condition.

[18 AAC 50.350(b)(3), 1/18/97 18 AAC 50.345(a)&(d), 5/3/02]

40. Each permit term and condition is independent of the permit as a whole and remains valid regardless of a challenge to any other part of this permit.

[18 AAC 50.350(b)(3), 1/18/97 18 AAC 50.345(a)&(e), 5/3/02]

41. Compliance with permit terms and conditions is considered to be compliance with those requirements that are:

41.1 included and specifically identified in the permit, or

41.2 determined in writing in the permit to be inapplicable.

[18 AAC 50.350(b)(3), 1/18/97 18 AAC 50.345(a)&(b), 5/3/02]

42. The permit may be modified, reopened, revoked and reissued, or terminated for cause. A request by the permittee for modification, revocation and reissuance, or termination or a notification of planned changes or anticipated noncompliance does not stay any operating permit condition.

[18 AAC 50.350(b)(3), 1/18/97 18 AAC 50.345(a)&(f), 5/3/02]

43. The permit does not convey any property rights of any sort, nor any exclusive privilege.

[18 AAC 50.350(b)(3), 1/18/97 18 AAC 50.345(a)&(g), 5/3/02]

44. The permittee shall allow an officer or employee of the department or an inspector authorized by the department, upon presentation of credentials and at reasonable times with the consent of the owner or operator, to:

44.1 enter upon the premises where a source subject to the operating permit is located or where records required by the permit are kept,

44.2 have access to and copy any records required by the permit,

44.3 inspect any facilities, equipment, practices, or operations regulated by or referenced in the permit, and

44.4 sample or monitor substances or parameters to assure compliance with the permit or other applicable requirements.

[18 AAC 50.350(b)(3), 1/18/97 18 AAC 50.345(a)&(h), 5/3/02]

Section 12. Permit As Shield from Inapplicable Requirements

In accordance with AS 46.14.290, and based on information supplied in the facility application, this section of the permit contains the requirements determined by the department not to be applicable to the Trading Bay Production Facility.

45. Table 2 identifies the sources that are not subject to the specified requirements at the time of permit issuance. Some of the requirements listed below may become applicable during the permit term due to an invoking event, even though the requirement is deemed inapplicable at the time of permit issuance.

[18 AAC 50.350(l), 1/18/97]

Table 2 - Permit Shields Granted

Source ID	Non Applicable Requirements	Reason for non-Applicability
Source IDs 17, 18 and 19	40 CFR 60, Subpart GG	Permittee did not commence construction, modification or reconstruction of these sources after October 3, 1977.
Facility	40 CFR 60, Subparts K, Ka, Kb	Permittee did not commence construction, modification or reconstruction of any tanks in these categories after June 11, 1973
Facility	40. C. F. R. 60 Subparts B, C, Ca, Cb, Da, Db, Dc, Ea, Eb, F, G, H, I, J, K, Ka, Kb, L, M, N, Na, O, P, Q, R, S, T, U, V, W, X, Y, Z,	No "affected facilities" within the permitted facility.
Facility	40. C. F. R. 60 Subparts AA, AAa, BB, CC, DD, EE, FF, GG, HH, KK, LL, MM, NN, PP, QQ, RR, SS, TT, UU, VV, WW, XX	No "affected facilities" within the permitted facility.
Facility	40 C.F.R. 60 Subparts AAA, BBB, DDD, FFF, GGG, HHH, III, JJJ, KKK, LLL, NNN, OOO, PPP, QQQ, RRR, SSS, TTT, UUU, and VVV	No "affected facilities" within the permitted facility.
Facility	40 C.F.R. 61 Subparts B, C, D, E, F, H, I, J, K, L, N, O, P, Q, R, T, V, W, Y, BB and FF.	No "affected facilities" within the permitted facility.
Facility	40 C.F.R. 63 Subparts A, B, F, G H, L, M, N, O, Q, R, T, W, X, and EE	No "affected facilities" within the permitted facility.

Source ID	Non Applicable Requirements	Reason for non-Applicability
Facility	40 C.F.R. 63 Subparts HH & HHH	Facility is not a "major source" of HAPs as defined in 40 CFR 63.760(a). In addition, permitted facility contains no "affected source" as defined in 40 CFR 63.760(b).
Facility	40 C.F.R. 68 Subpart G	Not an affected facility, operation, or industry.
Facility	40 C.F.R. 82 Subparts B & F	Not an affected facility, operation, or industry.
Facility	18 AAC 50.055(a)(2), Fuel Burning equipment standards, opacity emission limit of 30%, 3-minute average	No affected sources within the permitted facility.
Facility	18 AAC 50.055(a)(4), (5) and (8), Fuel burning equipment standards, opacity emission limit of 20%, 6-minute average	No affected sources within the permitted facility.
Facility	18 AAC 50.055(a)(6) and (7), Fuel burning equipment standards, opacity emission limit of 10%, 6-minute average	No affected sources within the permitted facility.
Facility	18 AAC 50.055(b)(2) and (3), Fuel burning equipment standards, PM emission limit of 0.1 grains	No affected sources within the permitted facility.
Facility	18 AAC 50.055(b)(4), Fuel burning equipment standards, PM emission limit of 0.15 grains	No affected sources within the permitted facility.
Facility	18 AAC 50.055(b)(5) and (6), Fuel burning equipment standards, PM emission limit of 0.04 grains	No affected sources within the permitted facility.
Facility	18 AAC 50.055(d) and (e), Fuel burning equipment standards	No affected sources within the permitted facility.
Facility	18 AAC 50.060, Pulp Mills	Not an affected facility, operation or industry.
Facility	18 AAC 50.070 Marine Vessels, visible emission standards	Not an affected facility, operation or industry.
Facility	18 AAC 50.075, Wood fired heating device emission standards	No affected sources within the permitted facility.
Facility	18 AAC 50.085, Volatile liquid storage tank emission standards	Regulations only apply to tanks within the Port of Anchorage.

Source ID	Non Applicable Requirements	Reason for non-Applicability
Facility	18 AAC 50.090 Volatile liquid loading racks and delivery emission standards	Regulations only apply to facilities within the Port of Anchorage.

Section 13. Visible Emissions and PM Monitoring, Recordkeeping and Reporting

For Gas Fired Sources (Source IDs 1 -14, 16, and 17)

46. Visible Emissions: Monitoring, Record Keeping, and Reporting.

46.1 The permittee shall use only gas as fuel in Source IDs 1 -14, 16, and 17. The permittee shall certify in each operating report required under condition 36 that the source burned only gas.

46.2 The permittee shall report under condition 34 if any fuel is burned other than gas in Source IDs 1 -14, 16, and 17.

[18 AAC 50.350(g) – (i) & 18 AAC 50.346(c), 5/3/02]

47. Particulate Matter Emissions: Monitoring, Record Keeping, and Reporting. The permittee shall comply with condition 46.

[18 AAC 50.350(g) – (i) & 18 AAC 50.346(c), 5/3/02]

For Dual Fuel-Fired Sources (Source ID 15 -AC Generator firing liquid-fuel)

48. Visible Emissions Monitoring. Observe the exhaust of Source ID 15 for visible emissions, following 40 C.F.R. 60, Appendix A-4, Method 9, adopted by reference in 18 AAC 50.040(a), for 18 minutes to obtain 72 consecutive 15 second opacity observations, at least once during the fifteen day period following any consecutive twelve month period in which Source ID 15 operates on liquid fuel for more than 400 hours. If possible conduct the observation while the source is burning liquid fuel. Follow the recordkeeping requirements of condition 52 and the reporting requirements of condition 53.

48.1 The permittee shall annually certify compliance with conditions 3 and 4 under condition 37.

48.2 The permittee shall record and report monthly hours of operation of Source ID 15 on liquid fuel.

48.3 The permittee shall notify the department and monitor as required by condition 48.

[18 AAC 50.346(c) & 18 AAC 50.350(g) – (h), 5/3/02]
[18 AAC 50.350(f)(4), 1/18/97]

49. Particulate Matter Monitoring for Source ID 15. The permittee shall conduct source tests on Source ID 15 to determine the concentration of particulate matter (PM) in the exhaust of a source in accordance with this condition.

49.1 Within six months of exceeding the criteria of condition 49.2 either

a. conduct a PM source test according to conditions 22 - 29; or

b. make repairs so that emissions no longer exceed the criteria of condition 49.2; or

c. operate the source solely on gas until the permittee complies with either 49.1a or 49.1b.

49.2 Conduct the test according to condition 49.1a if 18 consecutive minutes of Method-9 observations result in an 18-minute average opacity greater than 20 percent.

49.3 During each one-hour PM source test run, observe the exhaust for 6-minutes in accordance with Method-9. Submit a copy of these observations with the source test report.

49.4 The PM source test requirement in condition 49.1 is waived for an emissions unit if a PM source test on that unit has shown compliance with the PM standard during this permit term.

[18 AAC 50.346(c) & 18 AAC 50.350(g) – (i), 5/3/02]
[18 AAC 50.350(f)(4), 1/18/97]

50. Particulate Matter Reporting for Source ID 15. The permittee shall report as follows:

50.1 report under condition 34 the results of any PM source test for Source ID 15 that exceeds the PM emissions limit;

50.2 in each facility operating report under condition 36, include:

a. the dates, source ID(s), and results when an 18-minute opacity observation was greater than the threshold in condition 49.2;

b. a summary of the results of any PM testing under condition 49; and

c. copies of any visible emissions observation results (opacity observations), greater than the threshold of condition 49.2, if they were not already submitted.

[18 AAC 50.346(c) & 18 AAC 50.350(g) – (i), 5/3/02]

For Emergency Generator # 2 (Source ID 18 -liquid fired)

51. Visible Emissions and Particulate Matter Monitoring. The permittee shall record monthly hours of operation of Source ID 18. If Source ID 18 operates for more than 305 hours in any consecutive twelve-month period, monitor, report and record visible emissions and particulate matter as provided in Conditions 48 through 50, except that the reference in condition 48 to 400 hours is 305 hours for Source ID 18.

[18 AAC 50.346(c) & 18 AAC 50.350(g), 5/3/02]
[18 AAC 50.350(f)(4), 1/18/97]

For Liquid Fired Sources (Source IDs 15 & 18)

52. Visible Emission Record Keeping. The permittee shall keep records in accordance with this condition for each source subject to the Method-9 observations under condition 48.

[18 AAC 50.350(f)(4), 1/18/97; 18 AAC 50.350(h) & 18 AAC 50.346(c), 5/3/02]

52.1 the observer shall record all the information required in the VE Field Data Sheet and the VE Observation Record contained in Section 13.

52.2 to determine the six-minute average opacity, divide the observations recorded on the record sheet into sets of 24 consecutive observations; in no case shall two sets overlap; for each set of 24 observations, calculate the average by summing the opacity of the 24 observations and dividing this sum by 24; record the average opacity on the sheet;

52.3 calculate and record the highest 18-consecutive-minute average observed.

53. Visible Emissions Reporting. The permittee shall report visible emissions as follows:

53.1 include in each facility operating report under condition 36 for each Method-9 observation;

a. copies of the observation results (i.e. opacity observations) for each source except for the observations the permittee has already supplied to the department;

b. number of days observations were made;

c. highest six-minute average observed; and

d. dates when one or more observed six-minute averages were greater than 20 percent;

e. a summary of any monitoring or record keeping required under conditions 48 and 51 that was not done;

53.2 Report under condition 34:

a. the results of Method-9 observations that exceed an average 20 percent for any six-minute period; and

b. if any monitoring under condition 48 was not performed when required, report within three days of the date the monitoring failure was discovered.

[18 AAC 50.350(g) – (i) & 18 AAC 50.346(c), 5/3/02]

Visible Emission Observations for Flares-Source IDs 19 & 20

54. Visible Emissions Monitoring, Recordkeeping, and Reporting. The permittee shall observe the first six daylight flare events[6] occurring during the life of this permit[7].

54.1 Monitor flare events using Method-9.

54.2 Record the following information for the observed event:

a. the flare(s) Source ID number;

b. results of the Method-9 observations;

c. reason(s) for flaring;

d. date, beginning and ending time of event; and

e. cumulative volume of gas flared from Source ID(s) 19 and 20.

54.3 Until monitoring has been completed on the six flare events described in this condition, the permittee shall either monitor each qualifying flare event or include in the next report required by condition 36 an explanation of the reason the event was not monitored. Monitoring of a flare event may be postponed for safety or weather reasons, or because a qualified observer is not available.

54.4 Attach copies of the records required by condition 54.2 with the facility operating report required by condition 36.

54.5 Report under condition 34 whenever the opacity standard in condition 3 is exceeded.

[18 AAC 50.350(g)-(i), 5/3/02]
[18 AAC 50.350(f)(4), 1/18/97]

[6] For purposes of this permit, a "flare event" is flaring of gas for greater than one hour as a result of scheduled lease operations, i.e. maintenance or well testing activities. It does not include non-scheduled lease operations, i.e. process upsets, emergency flaring, or de minimis venting of gas incidental to normal operations.
[7] Flare events monitored within 12-months prior to permit effective date may count towards the six-event total.

Visible Emissions Field Data Sheet

Certified Observer: _____

Company: _____

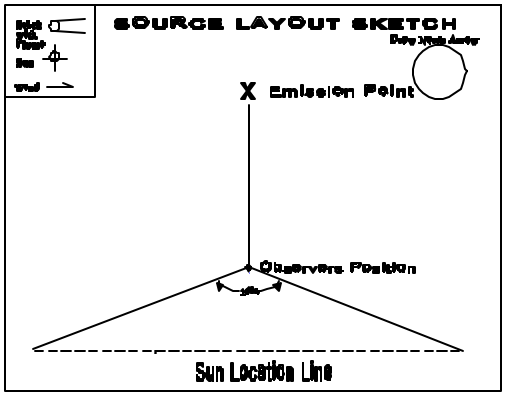
Location: _____

Test No.: _____ Date: _____

Source: _____

_____

Hrs. of observation: _____



Clock Time	Initial				Final
Observer location Distance to discharge					
Direction from discharge					
Height of observer point					
Background description					
Weather conditions Wind Direction					
Wind speed					
Ambient Temperature					
Relative humidity					
Sky conditions: (clear, overcast, % clouds, etc.)					
Plume description: Color					
Distance visible					
Water droplet plume? (Attached or detached?)					
Other information					

Visible Emissions Observation Record

Page ___ of ___

Company _____ Certified Observer_____

Test Number _____ Clock time_____

Date:		Visibility reduction every 15 Seconds (Opacity)				Steam Plume (check if applicable)		Comments
Hr	Min	0	15	30	45	Attached	Detached	

Additional information:

_____
Observer Signature

Data Reduction:
Duration of Observation Period (minutes) _____
Number of Observations _____
Number of Observations exceeding 20% _____

Average Opacity Summary

Set	Time	Opacity	
Number	Start—End	Sum	Average

Section 14. SO_2 Material Balance Calculation

If the sulfur content of any fuel combusted is greater than 0.75% by weight, calculate the three-hour exhaust concentration of SO_2 using the following equations:

A = 31,200 X [**wt%S_{fuel}**] = 31,200 X _____ = _____

B = 0.148 X [**wt%S_{fuel}**] = 0.148 X _____ = _____

C = 0.396 X [**wt%C_{fuel}**] = 0.396 X _____ = _____

D = 0.933 X [**wt%H_{fuel}**] = 0.933 X _____ = _____

E = B + C + D = _____ + _____ + _____ = _____

F = 21 – [**vol%$_{dry}O_{2,\ exhaust}$**] = 21 - _____ = _____

G = [**vol%$_{dry}O_{2,\ exhaust}$**] ÷ F = _____ ÷ _____ = _____

H = 1 + G = 1 + _____ = _____

I = E x H = _____ x _____ = _____

SO_2 concentration = A ÷ I = _____ ÷ _____ = _____ PPM

The **wt%S_{fuel}**, **wt%C_{fuel}**, and **wt%H_{fuel}** are equal to the weight percents of sulfur, carbon, and hydrogen in the fuel. These percentages should total 100%.

The fuel weight percent (wt%) of sulfur is obtained pursuant to condition 5.1. The fuel weight percents of carbon and hydrogen are obtained from the fuel refiner.

The volume percent of oxygen in the exhaust (**vol%$_{dry}O_{2,\ exhaust}$**) is obtained from oxygen meters, manufacturer's data, or from the most recent Orsat analysis at the same engine load used in the calculation.

Enter all of the data in percentages without dividing the percentages by 100. For example, if **wt%S_{fuel}** = 1.0%, then enter 1.0 into the equations not 0.01 and if **vol%$_{dry}O_{2,\ exhaust}$** = 3.00%, then enter 3.00, not 0.03.

[18 AAC 50.350(g), 1/18/97]

Section 15. ADEC Notification Form

Fax this form to: (907) 269-7508 Telephone: (907) 269-8888

Union Oil Company of California
Company Name

Trading Bay Production Facility
Facility Name

Reason for notification:

❑ **Excess Emissions** — *If you checked this box fill out section 1*

❑ **Other Deviation from Permit Condition** — *If you checked this box fill out section 2*

When did you discover the Excess Emissions or Other Deviation?
Date:__/__/__ Time:__:__

Section 1. Excess Emissions

(a) Event Information (Use 24-hour clock):

	START Time: (hr:min):	**END** Time:	**Duration**
Date: _____	_____:_____	_____:_____	_____:_____
Date: _____	_____:_____	_____:_____	_____:_____
		Total:	_____:_____

(b) Cause of Event (Check all that apply):

❑ START UP ❑ UPSET CONDITION ❑ CONTROL EQUIPMENT
❑ SHUT DOWN ❑ SCHEDULED MAINTENANCE ❑ OTHER _____

Attach a detailed description of what happened, including the parameters or operating conditions exceeded.

(c) Sources Involved:

Identify each emission source involved in the event, using the same identification number and name as in the permit. List any control device or monitoring system affected by the event. Attach additional sheets as necessary.

Source ID No.	Source Name	Description	Control Device

(d) Emission Limit Potentially Exceeded

Identify each emission standard potentially exceeded during the event. Attach a list of ALL known or suspected injuries or health impacts. Identify what observation or data prompted this report. Attach additional sheets as necessary.

Permit Condition	Limit	Emissions Observed

(e) Excess Emission Reduction:

Attach a description of the measures taken to minimize and/or control emissions during the event.

(f) Corrective Actions:

Attach a description of corrective actions taken to restore the system to normal operation and to minimize or eliminate chances of a recurrence.

(g) Unavoidable Emissions:

Do you intend to assert that these excess emissions were unavoidable?

❑ YES ❑ NO

Do you intend to assert the affirmative defense of 18 AAC 50.235?

❑ YES ❑ NO

Section 2. Other Permit Deviations

(a) Sources Involved:

Identify each emission source involved in the event, using the same identification number and name as in the permit. List any control device or monitoring system affected by the event. Attach additional sheets as necessary.

Source ID No.	Source Name	Description	Control Device

(b) Permit Condition Deviation:

Identify each permit condition deviation or potential deviation. Attach additional sheets as necessary.

Permit Condition	Potential Deviation

(c) Corrective Actions:

Attach a description of actions taken to correct the deviation or potential deviation and to prevent recurrence.

Based on information and belief formed after reasonable inquiry, I certify that the statements and information in and attached to this document are true, accurate, and complete.

Printed Name: Signature: Date:

Alaska Department of Environmental Conservation

Air Permits Program

January 17, 2003

Union Oil Company of California

Trading Bay Production Facility

Statement of Basis

of the terms and conditions for

Permit No. 58TVP01

Prepared by Scott Bailey

INTRODUCTION

This document sets forth the legal and factual basis for the terms and conditions of Operating Permit No. 58TVP01.

FACILITY IDENTIFICATION

Section 1 contains information on the Trading Bay Production facility (TBPF) provided in the Title V permit application. TBFP is a crude oil treatment and separating facility, SIC code 1311, where fluids from five Trading Bay Field offshore platforms are separated into produced water, natural gas and oil. Oil and natural gas are processed through oil/gas separators on the platforms and pumped through an underwater pipeline to the TBPF. Natural gas-fired line heaters and flow splitters are used in the oil production process.

The facility is owned and operated by Union Oil Company of California, and Union Oil Company of California is the permittee for the facility's operating permit. Heater treaters and flow splitters are used to treat the water/oil mixture and remove the water. The treated oil is then stored at the TBPF and transferred to a pipeline carrier for eventual shipment by tanker. The dried natural gas received from offshore platforms is piped to the Cook Inlet gas gathering system for sale.

SOURCE INVENTORY AND DESCRIPTION

Table 1 contains information on the sources at the facility as provided in the application and in the 1972 original equipment list. Table 1 describes the sources regulated by the permit. The table is provided for information and identification purposes only. Specifically, the source rating/size provided in the table is not intended to create an enforceable limit.

EMISSIONS

Table 1 contains emission information as provided in the application. A summary of the potential to emit (PTE)[8] from the Trading Bay Production Facility is shown in the following table.

[8] *Potential to Emit* or *PTE* means the maximim quantity of a release of an air contaminant, considering a facility's physical or operational design, based on continual operation of all sources with the facility for 24 hours a day, 365 days a year, reduced by the effect of pollution control equipment and approved state or federal limitations on the capacity of the facility's sources or the facility to emit an air contaminant, including the limitations such a restrictions on hours of rate of operation and type or amount of material combusted, stored, or processed as defined in AS 46.14.990(21), effective 1/18/97.

Table A - Emissions Summary, in Tons Per Year (tpy)

Pollutant	NO_X	CO	PM-10	SO_2	VOC	Total
PTE	195	199	21	90	30	535
Assessable Emissions	195	199	21	90	30	535

The potential regulated emissions for fuel burning equipment are based on AP-42 factors and previous TBPF Assessable Emissions Calculations.

BASIS FOR REQUIRING AN OPERATING PERMIT

Section 2 includes a description of the regulatory classifications of the Trading Bay Production Facility. This facility is classified as an Ambient Air Quality Facility in 18 AAC 50.300 (b)(2) because it contains fuel-burning equipment with a rated capacity of 100 million Btu per hour or more. This facility requires an operating permit under 18 AAC 50.325 (b)(1) because it has the potential to emit 100 tpy or more of a regulated air contaminant. This facility requires an operating permit under 18 AAC 50.325 (b)(2) because it is a facility described in 18 AAC 50.300(b)-(e).

This facility is avoiding classification as a Prevention of Significant Deterioration (PSD) Major Facility as defined in 18 AAC 50.300(c)(1) by limiting the potential to emit less than 250 tpy or more of sulfur oxides SO_2, and nitrogen oxides NO_X, regulated air contaminants.

Alaska regulations require operating permit applications to include identification of "regulated sources." As applied to Trading Bay Production Facility, the state regulations require a description of:

⇒ Each source regulated by a standard in 18 AAC 50.055, Industrial Processes and Fuel Burning Equipment, under18 AAC 50.335(e)(4)(C);

⇒ Each source subject to a standard adopted by reference in 18 AAC 50.040 under 18 AAC 50.335(e)(2); and

⇒ Sources subject to requirements in an existing department permit 18 AAC 50.335(e)(5).

The emission sources at Trading Bay Production Facility classified as "regulated sources" according to the above department regulations are listed in Table 1 of Operating Permit No. 58TVP01.

CURRENT AIR QUALITY PERMITS

Previous Air Quality Permit to Operate

The most recent permit issued for this facility is Permit-to-Operate No. 9523-AA001 and was issued before January 18, 1997. All facility-specific applicable requirements established in this previous permit are included for existing emission sources in Table B.

Construction Permits

No construction permits have been issued for this facility after January 18, 1997 (the effective date of the new divided operating and construction-permitting program).

Title-V Operating Permit Application History

The owner or operator submitted a Title V application on October 6, 1997.

The owner or operator amended this application on August 18, 1998; December 13 and 21, 2001; and July 17 and September 23, 2002.

COMPLIANCE HISTORY

The facility has operated at its current location since 1972. Review of the permit files for this facility, which includes the previous five years past inspection reports; indicate a facility generally operating in compliance with its operating permit.

FACILITY-SPECIFIC REQUIREMENTS CARRIED FORWARD

State of Alaska regulations in 18 AAC 50.350(d)(1)(D) require that an operating permit include each facility-specific requirement established in a prior operating permit. The table below lists the permit condition that established a requirement in Operating Permit No. 9523-AA001 and the new condition in Operating Permit No. 58TVP01 that carries the old requirement into the new permit.

Table B- Comparison of Pre-January 18, 1997 Permit No. 9523-AA001 Conditions to Operating Permit No. 58TVP01 Conditions [9]

Permit No. 9523-AA001 Condition	Description of Requirement	Permit No. 58TVP01 Condition	How condition was revised
Introductory paragraph and Exhibit A	Authority for permit and source list	Section 2 & Section 3	Same information, different formats.
1	comply with state air quality standards & increments	None	Now required only for construction permits.
2	comply with most stringent emission standards, limits, specifications	Section 5	Standards, limits, specifications are now in several conditions.
3	operate and maintain equipment to minimize emissions during startup and shutdown	14	Replaced by condition 14.
4	Limit Source IDs 29-32 to 120 hr/yr. operation	8.1	Same limit, different format for remaining Source IDs 17 & 18 listed in Table 1.
5	Limit sludge burner, Source ID 33 to 116 gal/hr feed rate	None	Sludge burner removed.
6	Limit PM emissions from Source IDs 28, 32, 33 to 24 tpy.	None	Sludge burner ID 33 removed, hour limits on ID 32 (now 19 in 058 TVP01) and ID 28 is now classified as insignificant.
7	Flow control for flaring systems equal to phase separator capacity. No liquids to flare. Limit gas flaring to 3.0 mmcf gas per day, annual average	8.2	Owner requested limit reduced cubic feet of gas burned.

[9] This table does not include all standard and general conditions

Permit No. 9523-AA001 Condition	Description of Requirement	Permit No. 58TVP01 Condition	How condition was revised
8	Diesel fuel sulfur limit ≤ 0.5 %	8.3	Same requirement, changed wording.
9	Source testing requirement	20	Same requirement, changed wording.
10	Source test rate & Ref. Methods	21 & 22	Same requirement, changed wording.
11	Submit source test plans within 30 & 60 day windows specified prior to testing	26	Same requirement, changed wording.
12	Written notification 10 days prior to testing	27	Same requirement, changed wording.
13	Collect/report fuel consumption, operating hrs., kW-hr, sulfur content of diesel fuel and natural gas	6	Fuel metering was removed due to removal of equipment changes in the Group sources including removal of the sludge burner, standby sources operating less than 400 hr/yr. are now categorized as insignificant and fuel monitoring required was not specific to require a meter on each source.
14	Submit source test results	28	Same requirement changed wording.
15	Monitoring of parameters in 13.	6	Modified requirement changed wording.
16	Notify the Dept. within 24 hours-fax or phone- of any excess emissions	34	Same requirement changed wording.
17	Submit written excess emissions report within 5 days unless notified per 16	Section 15	Changed to report within 48 hours.
18	Access to the facility	44	Same requirement changed wording.
19	Submit semi-annual Facility Operating Reports Jan. 30 & July 30	36	Same requirement changed wording.
20	Maintain records	33	Same requirement changed wording.

Permit No. 9523-AA001 Condition	Description of Requirement	Permit No. 58TVP01 Condition	How condition was revised
21	Notify Dept. 30 days prior to any change that would result in an increase in air emissions	None	Removed. State-only reporting for modifications required in a construction permit.
22	Display permit in control rm, keep on file	None	Removed. State only display required.

LEGAL AND FACTUAL BASIS FOR THE PERMIT CONDITIONS

Applicability: The state and federal regulations for each condition are cited in Operating Permit No. **58TVP01**.

Conditions 1 – 2, Assessable Emissions and Fee Requirements

Applicability: This state regulation applies because the permittee is subject to the requirements in 18 AAC 50.

Factual Basis: These conditions require the permittee to pay fees in accordance with 18 AAC 50.410 and the department's billing regulations in 18 AAC 50.420. The department's billing regulations set the due dates for payment of fees based on the billing date. The department will use these standard conditions in any operating permit unless the department determines that source or facility specific conditions more adequately meet the requirements of 18 AAC 50.

The conditions also set forth how the permittee may recompute assessable emissions. If the permittee does not choose to annually calculate assessable emissions, emissions fees may be paid based on "potential to emit."

The PTE set forth for TBPF in the condition is based on fuel oil that has 0.5% by weight sulfur content or fuel gas with a sulfur content of 5 ppm H_2S by volume. If the actual sulfur content of the fuel is greater than these assumptions, the assessable emissions calculations provided by the permittee should reflect the actual sulfur content.

Conditions 3 and Section 13, Visible Emissions Standard

Applicability: The visible emission standard 18 AAC 50.055(a)(1) applies to operation of industrial processes and all fuel-burning equipment in Alaska. Source ID(s) 1- 20 are fuel-burning equipment.

Factual basis:

The condition cites the state visible emission standard applicable to fuel-burning equipment. The permittee shall not cause or allow the boilers and engines to violate this standard. The monitoring, recordkeeping, and reporting requirements for visible emissions are listed in Section 13 of the permit. The department will use this standard condition in any operating permit unless the department determines that source or facility specific conditions more adequately meet the requirements of 18 AAC 50.

State air quality regulations adopted effective May 3, 2002 allow for an average six minute opacity observation. The existing regulation, limiting opacity to no more than 20% for more than 3 minutes in any one hour, is included because EPA Region X has not formally approved the changed opacity regulation as part of Alaska's State Implementation Plan (SIP).

Gas Fired:

Monitoring – The monitoring of gas fired sources for visible emissions is waived, i.e. no source testing will be required. The department has found that natural gas fired

equipment inherently has negligible PM emissions. However, the department can request a source test for PM emissions from any smoking equipment.

Reporting – The permittee must annually certify that only gaseous fuels are used in the equipment.

Liquid Fired:

Monitoring – The visible emissions are to be observed by using Method-9 as detailed in Section 13. Corrective actions such as maintenance procedures and either more frequent or less frequent testing may be required depending on the results of the observations.

Recordkeeping – The permittee is required to record the results of all visible emission observations and record any actions taken to reduce visible emissions.

Reporting – The permittee is required to report: 1) emissions in excess of the federal and the state visible emissions standard and 2) deviations from permit conditions. The permittee is required to include copies of the results of all visible emission observations with the facility operating report.

Insignificant Sources:

For Source ID 18, as long as it operates as an emergency generator, it is considered an insignificant source based on emissions as specified in 18 AAC 50.335(r) and no monitoring is required in accordance with recently issued Department Guidance AWQ 02-014 #3 for standby sources. The permittee must annually certify compliance with the visible emissions and particulate matter standard for Source ID 18 under condition 37.

Condition 4 and Section 13, Particulate Matter (PM) Standard

Applicability: The PM standard in 18 AAC 50.055(b)(1) applies to operation of all fuel burning equipment in Alaska. Source ID(s) 1- 20 are fuel-burning equipment. The SIP standard for PM applies to all fuel-burning equipment because it is contained in the federally approved SIP dated October 1983. However, monitoring of flares for the particulate matter is waived, i.e. no source testing will be required, because of the difficulty and questionable results these tests produce when applied to flares. The department has recognized this fact by incorporating the waiver in the State Implementation Plan adopted in November 1984 which has not been federally approved.

Factual basis: The condition cites the state particulate-matter emission standard applicable to fuel-burning equipment. The monitoring, recordkeeping, and reporting requirements are listed in Section 13 of the permit. The department will use this standard condition in any operating permit unless the department determines that source or facility specific conditions more adequately meet the requirements of 18 AAC 50.

The requirement to test for particulate matter to determine compliance with the standard is triggered by the results of visible emission observations, conducted in accordance with the state reference test method, only if the results show noncompliance with the visible emission standard or the average opacity.

Gas Fired:

Monitoring – The monitoring of gas fired sources for particulate matter is waived, i.e. no source testing will be required. The department has found that natural gas fired equipment inherently has negligible PM emissions. However, the department can request a source test for PM emissions from any smoking equipment.

Reporting – The permittee must annually certify that only gaseous fuels are used in the equipment.

Liquid Fired:

Monitoring – The permittee is required to conduct PM source testing if threshold values for opacity are exceeded.

Recordkeeping – The permittee is required to record the results of PM source tests.

Reporting – The permittee is required to report: 1) incidents when emissions in excess of the opacity threshold values have been observed and 2) results of PM source tests. The permittee is required to include copies of the results of all visible emission observations with the facility operating report.

Insignificant Sources:

For Source ID 18, as long as it operates as an emergency generator, it is considered an insignificant source for particulate matter based on emissions as specified in 18 AAC 50.335(r) and no monitoring is required in accordance with recently issued Department Guidance AWQ 02-014 #3 for standby sources. The permittee must annually certify compliance with the particulate matter standard for Source ID 18 in condition 37.

Condition 5, Sulfur Compound Emissions

Applicability: The sulfur emission standard in 18 AAC 50.055(c) applies to the operation of all fuel-burning equipment in the State of Alaska. Source IDs 1- 20 are fuel-burning equipment. The SIP standard for sulfur dioxide applies because it is contained in the federally approved SIP dated October 1983.

Factual basis: The condition re-iterates a sulfur emission standard applicable to fuel-burning equipment. The permittee may not cause or allow their equipment to violate this standard. The department will use this standard condition in any operating permit unless the department determines that source or facility specific conditions more adequately meet the requirements of 18 AAC 50.

***Diesel Fuel (Fuel Oil)*:** Fuel oil sulfur is measured in weight percent sulfur. Calculations show that fuel containing no more than 0.75% sulfur will always comply with the emission standard. This is true for all liquid hydrocarbon fuels, even with no excess air. Verification of ASTM fuel grade as No. 1 or No. 2 fuel oil will certify compliance with the standard because these fuel oils always have a fuel sulfur content of no more than 0.5%. For fuels with a sulfur content higher than 0.75%, this condition requires the permittee to use the equations in Section 14 to calculate the exhaust gas SO_2 concentration, showing whether the

standard was exceeded. The equations in Section 14 are all based on stoichiometric mass balance.[10]

Fuel Gas: Fuel gas sulfur is measured as hydrogen sulfide, i.e. H_2S concentration in ppm by volume. Calculations made by the department show that fuel gas containing no more than 4000 ppm H_2S would always comply with the exhaust emission standard of 500 ppm SO_2. This is true for all fuel gases, even with no excess air. Since the current H_2S concentration in the fuel gas, measured by a length-of-stain detector, is less than 1ppm the potential for exceeding the state emission standard during the current permit term is negligible. For Unocal facilities in Cook Inlet subject to NSPS regulations the EPA granted Unocal an alternate fuel-monitoring plan on September 22, 1998.

The department approved, at Unocal's request, an alternate less accurate test method for measuring the H_2S concentration since the H_2S concentrations are much less than the concentration that would cause a violation of the 500 ppm SO_2 emission standard. Equations to calculate the exhaust gas SO_2 concentrations resulting from the combustion of fuel gas are not included in this permit. Fuel gas with an H_2S concentration of even 10% of 4000 ppm is not projected to be available at the Trading Bay Production facility during the life of this permit.

Conditions 6 – 7, Operating Conditions Carried Forward

Applicability: The previous Operating Permit 9523-AA001 contained conditions that are carried forward to this Title V permit. These conditions contain requirements to record operating hours so that emission levels may be calculated for all fuel burning equipment.

Factual Basis: These conditions contain requirements to monitor, record and report operating hours. Operating hour's times the maximum fuel-use/hour for each source provides an adequate basis for emissions estimates.

Condition 8, Facility-wide Requirements

Applicability: The previous Operating Permit 9523-AA001 contained facility-wide conditions for avoiding classification as a PSD source that must be carried forward to this Title V permit.

Factual Basis: These conditions contain requirements to operate fuel burning sources with restrictions to avoid classification as a PSD source for nitrogen oxide and sulfur oxide emissions.

In January 1994 Marathon Oil, the previous owner of Trading Bay, submitted an amendment to their October 1993 request to install the high-pressure flare. The low-pressure flare installation flow diagram included a mass flow meter. The high pressure flare flow diagram included annubar taps and a flow meter and a requested limit of 24 mmscf/yr for normal operations to avoid PSD review for particulate matter. The normal emission rate, on an hourly basis, is 2,740 scf/hr. A ten- percent factor was used when drafting the previous Operating Permit 9523-AA001 for a normal flow of 3.0 Mscf/hr. The maximum emergency gas flow is estimated at 3.0 MMscf/day.

[10] http://www.state.ak.us/dec/dawq/aqm/newpermit.htm

Emergency generators, Source IDs 17 and 18, operate on a reduced hours schedule and therefore have potentially insignificant emissions. Under DEC Air Quality Guidance No. AWQ 02-014 issued April 2, 2002, Item #3, Source IDs 17 and 18 are eligible for reduced VE and particulate matter monitoring as long as they remain insignificant sources. Source ID 18 also has an owner-requested limit of 305 hours to remain an insignificant source.

Conditions 9 – 12, Insignificant Sources

Applicability: These state regulations apply because the permittee is subject to the requirements in 18 AAC 50.055 (a), 18 AAC 50.055 (b)(1), and 18 AAC 50.055 (c)(1) as amended on May 3, 2002.

Factual basis: The department will use these standard conditions in any operating permit unless the department determines that source or facility specific conditions more adequately meet the requirements of 18 AAC 50. The department finds that the insignificant sources at this facility do not need specific monitoring, recordkeeping and reporting to ensure compliance under condition 9.

Condition 9 requires certification that the sources did not exceed state emission standards during the previous year and did not emit any prohibited air pollution. Source ID 19 is a standby source and under #3 of the Department Guidance AWQ 02-014 issued April 2, 2002 requires only this certification for compliance with conditions 10 and 11. The general emission standards in conditions 10 through 12 apply to all industrial process fuel-burning equipment.

State air quality regulations adopted effective May 3, 2002 allow for an average six minute opacity observation. The existing regulation, limiting opacity to no more than 20% for more than 3 minutes in any one hour, is included because EPA Region X has not formally approved the changed opacity regulation as part of Alaska's State Implementation Plan (SIP).

The conditions re-iterate the general standards and require some compliance for insignificant sources. The permittee may not cause or allow their equipment to violate these standards. Insignificant sources are not listed in the permit unless specific monitoring, recordkeeping and reporting are necessary to ensure compliance. These general emission standards apply to all industrial processes and fuel-burning equipment regardless of size.

Condition 13, Asbestos NESHAP

Applicability: [18 AAC 50.040(b)(3) & 18 AAC 50.350(d)(1), 1/18/97]
[Federal Citation: 40 C.F.R. 61, Subpart M, 12/19/96]
If the permittee engages in asbestos demolition and renovation, then these requirements may apply.

Factual Basis: The condition restates the prohibition on stack injection (i.e. disposing of material by injecting it into a stack). No specific monitoring for this condition is practical. Compliance is ensured by inspections, because the source or stack would need to be modified to accommodate stack injection.

Condition 14, Good Air Pollution Control Practice

Applicability: Applies to all sources, **except** NSPS regulated sources, i.e. Source IDs 1 - 20.

Factual basis: The condition requires the permittee to comply with good air pollution control practices for all sources.

Maintaining and operating equipment in good working order is fundamental to preventing unnecessary or excess emissions. Standard conditions for monitoring compliance with emission standards are based on the assumption that good maintenance is performed. Without appropriate maintenance, equipment can deteriorate more quickly than with appropriate maintenance. If appropriate maintenance is not applied to the equipment, the department may have to apply more frequent periodic monitoring requirements (unless the monitoring is already continuous) to ensure that the monitoring results are representative of actual emissions.

The permittee is required to keep maintenance records to show that proper maintenance procedures were followed, and to make the records available to the department. The department may use these records as a trigger for requesting source testing if the records show that maintenance has been deferred.

Condition 15, Dilution

Applicability: Applies to the permittee because the permittee must comply with emission standards in 18 AAC 50.

Factual Basis: The underlying regulation is 18 AAC 50.045(a). The requirement prohibits diluting emissions as a means of compliance. In practical terms, dilution only affects compliance when the emissions are being measured. Careful reviews of source test plans and operating conditions should reveal any dilution as a result of the introduction of non-process air into the exhaust.

Condition 16, Stack Injection

Applicability: [18 AAC 50.055(g) & 18 AAC 50.310(m), 1/18/97].

Applies to the facility because the facility contains a stack or source modified after November 1, 1982.

Factual Basis: The condition prohibits the permittee from releasing materials other than process emissions, products of combustion, or materials introduced to control pollutant emissions from a stack (i.e. disposing of material by injecting it into a stack). No specific monitoring for this condition is practical. Compliance is ensured by inspections, because the source or stack would need to be modified to accommodate stack injection.

Condition 17, Open Burning

Applicability: Open burning regulations in 18 AAC 50.346 and 18 AAC 50.350 apply if the permittee conducts open burning at the facility. The department will use these standard conditions in any operating permit unless the department determines that source or facility specific conditions more adequately meet the requirements of 18 AAC 50.

Factual Basis: The condition requires the permittee to comply with the regulatory requirements when conducting open burning at the facility.

No specific monitoring is required for this condition. Condition 17.5f requires the permittee to keep "sufficient records" to demonstrate compliance with the standards for conducting open burning, but does not specify what these records should contain.

More extensive monitoring and recordkeeping is not warranted because the permittee does not conduct open burning as a routine part of their business. Also, most of the requirements are prohibitions, which are not easily monitored. Additional monitoring is achieved through condition 18, which requires a record of complaints. Therefore, the department does not believe that additional monitoring is warranted.

Condition 18, Air Pollution Prohibited

Applicability: These state regulations apply because the permittee is subject to the requirements in 18 AAC 50.

Factual Basis: The underlying regulations are 18 AAC 50.110 and 18 AAC 50 346. The department will use these standard conditions in any operating permit unless the department determines that source or facility specific conditions more adequately meet the requirements of 18 AAC 50.

Condition 19, Permit Renewal

Applicability: [18 AAC 50.335(a), 1/18/97]

Applies if the permittee intends to renew the permit.

Factual Basis: The condition restates the regulatory deadlines, citing the specific dates applicable to the facility. Submittal of the renewal application is sufficient monitoring, recordkeeping and reporting.

Condition 20, Requested Source Tests

Applicability: These state regulations apply because the permittee is subject to the requirements in 18 AAC 50.

Factual Basis: The underlying regulations are 18 AAC 50.220 and 18 AAC 50.345. The department will use this standard condition in any operating permit unless the department determines that source or facility specific conditions more adequately meet the requirements of 18 AAC 50.

Conditions 21 – 23, Source Test Conditions, Reference Test Methods and Excess Air Requirements

Applicability: These state regulations apply because the permittee is subject to the requirements in 18 AAC 50.

Factual Basis: The underlying regulations are 18 AAC 50.030, 18 AAC 040 and 18 AAC 50.220. These conditions restate regulatory requirements for source testing. As such, they supplement the specific monitoring requirements stated elsewhere in this permit. The tests reports required by later conditions adequately monitor compliance with these

conditions, therefore no specific monitoring, reporting, or recordkeeping is needed. The department will use these standard conditions in any operating permit unless the department determines that source or facility specific conditions more adequately meet the requirements of 18 AAC 50.

Condition 24, Test Exemption

Applicability: Applies when the source exhaust is observed for visible emissions.

Factual Basis: As provided in 18 AAC 50.345(a), 5/03/02, the requirements for test plans, notifications and reports do not apply to visible emissions observations by smoke readers, except in connection with required particulate matter testing.

Conditions 25 – 28 Extension, Test Plans, Notification & Reports

Applicability: These state regulations apply because the permittee is subject to the requirements in 18 AAC 50.

Factual Basis: The underlying regulations are 18 AAC 50.345 and 18 AAC 50.346. The department will use these standard conditions in any operating permit unless the department determines that source or facility specific conditions more adequately meet the requirements of 18 AAC 50. Because these standard conditions supplement specific monitoring requirements stated elsewhere in this permit, no monitoring, reporting, or recordkeeping is required. The source test itself is adequate to monitor compliance with this condition.

Condition 29, Particulate Matter (PM) Calculations

Applicability: [18 AAC 50.220(f) & 18 AAC 50.350(g), 1/18/97]

Applies when the permittee tests for compliance with the particulate matter standard.

Factual Basis: The condition incorporates a regulatory requirement for particulate matter source tests. The permittee must use a certain equation to calculate the particulate-matter emission concentration from the source test results. Because this condition supplements specific monitoring requirements stated elsewhere in this permit, no monitoring, reporting, or recordkeeping is required.

Condition 30, Certification

Applicability: This state regulation applies to certification of reports because the permittee is subject to the requirements in 18 AAC 50.

Factual Basis: The underlying regulations are 18 AAC 50.205, 18 AAC 50.350 and 18 AAC 50.346. The department will use this standard condition in any operating permit unless the department determines that source or facility specific conditions more adequately meet the requirements of 18 AAC 50. This condition restates the regulatory requirement that all reports must be certified. To ease the certification burden, the condition allows the excess emission reports to be certified with the semi-annual operating report, although the excess emission reports must be submitted more frequently. This condition supplements the

reporting requirements of the permit and no monitoring, recordkeeping or reporting for this condition is needed.

Condition 31, Submittals

Applicability: [18 AAC 50.350(i), 1/18/97]

Applies because the permittee is required to send reports to the department.

Factual Basis: This condition merely specifies where submittals to the department should be sent. Receipt of the submittal at the correct department office is sufficient monitoring for this condition. This condition supplements the reporting requirements of the permit and no monitoring, recordkeeping or reporting for this condition is needed.

Condition 32, Information Requests

Applicability: This state regulation applies to information requests from the department because the permittee is subject to the requirements in 18 AAC 50.

Factual Basis: The underlying regulations are 18 AAC 50.200, 18 AAC 50.345 and 18 AAC 50.350. The department will use this standard condition in any operating permit unless the department determines that source or facility specific conditions more adequately meet the requirements of 18 AAC 50.

Condition 33, Recordkeeping Requirements

Applicability: [18 AAC 50.350(h), 5/3/02]

Applies to records required by a permit.

Factual Basis: The condition restates the regulatory requirements for recordkeeping, and supplements the recordkeeping defined for specific conditions in the permit. The records being kept provide adequate evidence of compliance with this requirement, therefore, no additional monitoring, recordkeeping or reporting is required. The department will use this standard condition in any operating permit unless the department determines that source or facility specific conditions more adequately meet the requirements of 18 AAC 50.

Condition 34, Excess Emission and Permit Deviation Reports

Applicability: This state regulation applies because the permittee is subject to the requirements in 18 AAC 50.

Factual Basis: The underlying regulations are 18 AAC 50.200, 18 AAC 50.350 and 18 AAC 50.346. The department will use this standard condition in any operating permit unless the department determines that source or facility specific conditions more adequately meet the requirements of 18 AAC 50.

Condition 35, NSPS and NESHAP Reports

Applicability: Applies to facilities subject to NSPS and NESHAP federal regulations because the permittee is subject to the requirements in 18 AAC 50.040.

Factual Basis: The condition supplements the specific reporting requirements in 40 C.F.R. 60 and 40 C.F.R. 61. The permit does not need any MR&R. The reports themselves are adequate monitoring for compliance with this condition.

Condition 36, Operating Reports

Applicability: [18 AAC 50.350(i), 1/18/97 & 18 AAC 50.346(b), 5/3/02]

Applies to records required by a permit.

Factual Basis: The condition restates the regulatory requirements for recordkeeping, and supplements the recordkeeping defined for specific conditions in the permit. The records being kept provide adequate evidence of compliance with this requirement, therefore, no additional monitoring, recordkeeping or reporting is required. The department will use this standard condition in any operating permit unless the department determines that source or facility specific conditions more adequately meet the requirements of 18 AAC 50.

Condition 37, Annual Compliance Certification

Applicability: These general emission standards apply to all industrial processes, fuel-burning equipment, and incinerators regardless of size.

Factual Basis: This condition specifies the periodic compliance certification requirements, dues date for the annual compliance certification and require the notarized signature of a responsible official. Because this requirement is a report, no monitoring, recordkeeping or reporting is needed. The department will use this standard condition in any operating permit unless the department determines that source or facility specific conditions more adequately meet the requirements of 18 AAC 50.

Conditions 38 – 44, Standard Conditions

Applicability: These state regulations apply because the permittee is subject to the requirements in 18 AAC 50.

Factual Basis: The underlying regulation is 18 AAC 50.346. These standard conditions meet the requirements under the Clean Air Act for demonstrating general compliance with a Title V permit. The department will use these standard conditions in any operating permit unless the department determines that source or facility specific conditions more adequately meet the requirements of 18 AAC 50.

Condition 45, Permit Shield

Applicability [18 AAC 50.350(l), 1/18/97]

Applies because the permittee has requested a shield for the applicable requirements listed under this condition.

Factual Basis: Table C explains the permit shield requests, which were not granted, and the department's Applicability determination. The permit conditions sets forth the requirements that the department determined were not applicable to the facility, based on the permit application, past operating permit, construction permits and inspection reports.

Table C. Permit Shield Decision

Shield requested for:	Shielded?	Reason for shield decision
40 C.F.R. 61, Subpart M	No	Removing asbestos makes facility subject to 40 C.F.R. 61

Conditions 46 – 53 (Section 13), Visible Emissions and PM Monitoring Plan

Applicability: [18 AAC 50.055(a)(1) & 18 AAC 50.350(g) – (i), 5/3/02]

[18 AAC 50.350(d)(1)(D), 6/21/98 & 18 AAC 50.346(c), 5/3/02]

Factual Basis: The permittee must establish by actual visual observations, which can be supplemented by other means, such as corrective maintenance, that the industrial process-the incinerator and liquid-fired equipment at the facility is in continuous compliance with the State's emission standards for visible emissions. For the operation of Source ID 15 on liquid fuel the department and the permittee recognize that the monitoring provisions of the standard permit condition for liquid fuel firing are not intended for a source that is only infrequently operating on the back-up fuel.

The underlying regulation for these conditions is 18 AAC 50.346(c). The department will use these standard conditions in any operating permit unless the department determines that source or facility specific conditions more adequately meet the requirements of 18 AAC 50.

These conditions detail a stepwise process for monitoring compliance with the State's visible emission standard for liquid-fired equipment covered by these conditions. Unocal proposed terms and conditions, in lieu of the department's standard conditions, based on Method-9 for monitoring visible emissions and particulate matter for dual-fuel Source ID 15 on liquid-fuel and liquid-fueled Source ID 18. The final terms and conditions reflect the recently issued Department Guidance AWQ 02-014 # 3 for dual fired sources. The recordkeeping and reporting for this monitoring are included in these conditions.

Condition 54, Visible Emission Monitoring for Flares

Applicability: [18 AAC 50.055(a)(1), 18 AAC 50.350(g), & 18 AAC 50.350(f)(4) 1/18/97]

[18 AAC 50.350(h) – (i), 5/3/02]

Apply because these conditions detail the monitoring, recordkeeping, and reporting required in condition 3 for gas-fired flares.

Factual Basis: The original condition for flare monitoring, jointly developed by the department and the Alaska Oil and Gas Association (AOGA) was originally developed to provide a standardized version of flare monitoring that is not dependant upon the type of upstream treatment equipment. It has been assumed that gas-fired “smokeless” flares normally burn without emitting visible emissions, but actual field data demonstrating this assumption is not available. However, gas-fired flares have been shown to smoke when a control device - a knockout drum, flare scrubber, gas or steam assist, or vapor recovery system-malfunctions. Thus, the original protocol set out a method to collect actual field data to support the “smokeless” assumption and requires corrective action to correct malfunctions.

Since it is impractical to require facilities to have a certified Method-9 opacity reader on site for an unpredictable emergency flare event, the monitoring protocol requires Method-9 readings only during predictable and quantifiable flare events. Predictable and quantifiable events are defined as those generated by scheduled maintenance activities or non-upset modes of operations as well as planned startup and shutdown events.

Record keeping and reporting is designed to facilitate data collection. It is believed that the six observations of “smokeless” flare events in the standard condition should be sufficient to reduce monitoring to a minimum contingent upon the assurance that all control devices are operating acceptably.

On July 11, 2002 Unocal submitted six Method-9 observation documents for each of the high pressure and low pressure flares for predictable and quantifiable flare events covering the period June 26, 2002 through July 10, 2002. The visible emission (VE) readings were all "0%" opacity, which is significantly less than the 20% limit. The requirements of condition 54 have been met.